

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 15.11.2011  
Date of Reporting : 16.11.2011

### I. Regional Availability/Demand:

Evening Peak (19:00 Hrs) MW				Off Peak (03:00 Hrs) MW				Day Energy (Net MU)	
Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
28450	2284	30734	49.80	23800	1184	24984	49.96	627.9	57.02

\* Half hourly (two 15 minutes block--one block each before and after the designated time) average frequency

### II. A. State's Load Energy Details (At States periphery) in MUs:

State	State's Control Area Generation (Net MU)				Drawal Schedule (Net MU)	Actual Drawal (Net MU)	UI (Net MU)	Consumption (Net MU)	Shortages * (MU)
	Thermal	Hydro	Renewable/others	Total					
Punjab	48.94	11.22		60.16	22.10	23.59	1.49	83.74	2.93
Haryana	57.21	0.84		58.05	27.29	29.12	1.83	87.17	5.89
Rajasthan	78.43	4.50	2.90	85.83	43.34	51.44	8.09	137.26	19.17
Delhi	30.94			30.94	38.95	31.25	-7.69	62.19	0.04
UP	87.70	7.35	1.20	96.25	85.51	76.08	-9.43	172.33	27.20
Uttarakhand		9.92		9.92	17.15	17.89	0.74	27.81	0.30
HP		6.84		6.84	14.85	14.71	-0.14	21.55	0.00
J & K		7.34	0.00	7.34	20.19	25.05	4.86	32.40	1.50
Chandigarh				0.00	3.59	3.45	-0.13	3.45	0.00
<b>Total</b>	<b>303.21</b>	<b>48.01</b>	<b>4.10</b>	<b>355.32</b>	<b>272.97</b>	<b>272.59</b>	<b>-0.38</b>	<b>627.91</b>	<b>57.02</b>

\* Shortage furnished by the respective constituent.

### II. B. State's Demand Met in MWs:

State	Evening Peak (19:00 Hrs) MW				Off Peak (03:00 Hrs) MW				Day Energy MU STOA/PX transaction
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	
Punjab	3826	160	-2	-564	3044	0	-24	-737	-12.71
Haryana	3844	853	171	-94	2964	0	-415	-94	-2.37
Rajasthan	6160	276	544	95	6158	284	777	220	6.74
Delhi	3023	0	-111	-207	1593	0	-596	-445	-6.84
UP	7402	995	-976	391	7190	900	0	391	9.39
Uttarakhand	1335	0	-29	316	985	0	-13	316	7.58
HP	1158	0	-59	-356	557	0	-40	-22	-3.57
J&K	1522	0	68	73	1216	0	187	103	2.00
Chandigarh	180	0	-31	0	93	0	-4	-30	-0.24
<b>Total</b>	<b>28450</b>	<b>2284</b>	<b>-425</b>	<b>-345</b>	<b>23800</b>	<b>1184</b>	<b>-128</b>	<b>-298</b>	<b>-0.02</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### III. Regional Entities :

Entity	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI Net MU
A. NTPC	Singrauli STPS	2000	1892	2057	2017	46.16	1923	45.41	0.75
	Rihand I STPS	1000	770	997	820	18.68	778	18.48	0.20
	Rihand II STPS	1000	975	1037	1040	23.62	984	23.40	0.22
	Dadri I STPS	840	573	966	636	13.91	579	13.75	0.16
	Dadri II STPS	980	922	1004	631	22.27	928	22.13	0.14
	Unchahar I TPS	440	378	443	400	9.16	382	9.08	0.09
	Unchahar II TPS	440	380	438	400	9.18	382	9.12	0.06
	Unchahar III TPS	210	188	220	200	4.54	189	4.51	0.03
	ISTPP (Jhajihar)	500	424	515	499	10.20	425	10.06	0.15
	Dadri GPS	830	620	548	508	13.06	544	13.14	-0.08
	Anta GPS	419	404	353	324	8.99	375	8.52	0.47
	Auraiya GPS	663	619	436	384	10.52	438	10.63	-0.11
	<b>Sub Total (A)</b>	<b>9322</b>	<b>8145</b>	<b>9014</b>	<b>7859</b>	<b>190.28</b>	<b>7929</b>	<b>188.22</b>	<b>2.07</b>
	B. NPC	NAPS	440	199	235	239	4.77	199	4.78
RAPS- B		440	190	223	224	4.85	202	4.56	0.29
RAPS- C		440	420	462	479	10.14	423	10.08	0.06
<b>Sub Total (B)</b>		<b>1320</b>	<b>809</b>	<b>920</b>	<b>942</b>	<b>19.76</b>	<b>823</b>	<b>19.42</b>	<b>0.34</b>
C. NHPC	Chamera I HPS	540	534	180	0	2.01	84	1.97	0.04
	Chamera II HPS	300	297	135	99	1.86	78	1.86	0.01
	Bairasuil HPS	180	179	120	0	0.69	29	0.64	0.05
	Salal-HPS	690	171	202	218	4.17	174	4.10	0.07
	Tanakpur-HPS	94	42	53	40	1.09	46	1.08	0.01
	Uri-HPS	480	153	218	120	4.12	172	4.25	-0.13
	Dhauliganga-HPS	280	277	219	227	1.84	77	1.82	0.02
	Dulhasti-HPS	390	388	128	0	3.73	155	3.84	-0.11
	Sewa-II HPS	120	119	40	0	0.33	14	0.32	0.01
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2160</b>	<b>1295</b>	<b>704</b>	<b>19.84</b>	<b>827</b>	<b>19.87</b>	<b>-0.03</b>
D. NJPC	Nathpa Jhakri	1500	1600	1274	0	11.05	461	10.97	0.08
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1274</b>	<b>0</b>	<b>11.05</b>	<b>461</b>	<b>10.97</b>	<b>0.08</b>
E. THDC	Tehri HPS	1000	693	460	0	3.35	140	3.25	0.10
	Koteshwar HPS	100	28	86	0	0.63	26	0.60	0.03
	<b>Sub Total (E)</b>	<b>1100</b>	<b>722</b>	<b>546</b>	<b>0</b>	<b>3.98</b>	<b>166</b>	<b>3.85</b>	<b>0.13</b>
F. BBMB	Bhakra HPS	1480	592	997	418	14.74	614	14.20	0.54
	Dehar HPS	990	178	499	165	4.66	194	4.27	0.40
	Pong HPS	396	280	300	240	7.03	293	6.73	0.30
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1050</b>	<b>1796</b>	<b>823</b>	<b>26.43</b>	<b>1101</b>	<b>25.19</b>	<b>1.24</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	93	0	0.50	21	0.56	-0.06
	KWHEP HPS(IPP)	1000	0	371	145	5.95	248	6.00	-0.05
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	135	128	3.13	130	2.76	0.37
<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>598.8</b>	<b>273</b>	<b>9.58</b>	<b>399</b>	<b>9.32</b>	<b>0.26</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>20625</b>	<b>14485</b>	<b>15443</b>	<b>10601</b>	<b>280.92</b>	<b>11705</b>	<b>276.83</b>	<b>4.09</b>	

I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sent out MW)
Punjab	Guru Gobind Singh TPS (Ropar)	1260	1048.00	1210.00	23.86	994
	Guru Nanak Dev TPS(Bhatinda)	440	210.00	212.00	4.56	190
	Guru Hargobind Singh TPS(L.mbt)	920	914.00	920.00	20.52	855
	Thermal (Total)	2620	2172.00	2342.00	48.94	2039
	Total Hydro	1148	254.00	264.00	11.22	467
<b>Total Punjab</b>	<b>3768</b>	<b>2426</b>	<b>2606</b>	<b>60.16</b>	<b>2507</b>	
Haryana	Panipat TPS	1360	1063.00	1094.00	26.62	1109
	DCRTPP (Yamuna nagar)	600	268.00	280.00	6.49	270
	Faridabad GPS (NTPC)	432	412.00	329.00	9.37	390
	RGTPP (khedar) (IPP)	1200	329.00	823.00	14.73	614
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2072.00	2526.00	57.21	2384
	Total Hydro	62	32.00	33.00	0.84	35
	<b>Total Haryana</b>	<b>3679</b>	<b>2104</b>	<b>2559</b>	<b>58.05</b>	<b>2419</b>
Rajasthan	kota TPS	1240	1165.00	1159.00	27.62	1151
	suratgarh TPS	1500	1149.00	1144.00	27.24	1135
	Chabra TPS	500	315.00	315.00	2.83	118
	Dholpur GPS	330	278.00	275.00	6.70	279
	Ramgarh GPS	113	65.00	65.00	1.66	69
	RAPS A (NPC)	300	0.00	0.00	0.00	0
	Barsingsar (NLC)	250	54.00	54.00	1.33	56
	Giral LTPS (IPP)	250	154.00	114.00	2.83	118
	Rajwest LTPS (IPP)	135	344.00	365.00	8.20	342
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	4753	3524.00	3491.00	78.43	3268
	Total Hydro	550	283.00	167.00	4.50	187
	Wind power	1294	30.00	124.00	1.98	83
	Biomass	71	38.00	38.00	0.92	38
	Renewable/Others (Total)	1365	68	162	2.90	121
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3875</b>	<b>3820</b>	<b>85.83</b>	<b>3576</b>
	UP	Anpara TPS	1630	1514	1427	31.70
Obra TPS		1442	625	634	13.50	563
Paricha TPS		640	336	414	8.60	358
Panki TPS		210	23	135	1.50	63
Harduaganj TPS		375	27	30	0.70	29
Tanda TPS (NTPC)		440	401	398	9.78	407
Roza TPS (IPP)		600	567	567	13.60	567
Anpara-C (IPP)		600	468	324	8.24	343
Thermal (Total)		5937	3961	3937	87.70	3654
Vishnuparyag HPS (IPP)		400	149	144	3.46	144
Other Hydro		527	132	0	3.88	162
Cogeneration		951	50	50	1.20	50
<b>Total UP</b>		<b>7815</b>	<b>4292</b>	<b>4131</b>	<b>96.25</b>	<b>3866</b>
Uttarakhand		Total Hydro	1303	457	336	9.92
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>457</b>	<b>336</b>	<b>9.92</b>	<b>413</b>
Delhi	Rajghat TPS	135	98	100	2.55	106
	Delhi Gas Turbine	282	185	171	4.57	190
	Pragati Gas Turbine	330	300	294	7.51	313
	Rithala GPS	108	21	29	0.54	23
	Bawana GPS	440	160	0	4.99	208
	Badarpur TPS (NTPC)	705	485	405	10.79	449
	Thermal (Total)	2000	1249	1109	30.94	1289
	<b>Total Delhi</b>	<b>2000</b>	<b>1249</b>	<b>1109</b>	<b>30.94</b>	<b>1289</b>
HP	Baspa HPS (IPP)	330	0	0	1.74	72
	Malana HPS (IPP)	101	3	0	0.36	15
	Other Hydro	571	252	158	4.75	198
	<b>Total HP</b>	<b>1002</b>	<b>255</b>	<b>158</b>	<b>7</b>	<b>285</b>
J & K	Baglihar HPS (IPP)	450	234	233	5.61	234
	Other Hydro	323	54	100	1.73	72
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>288</b>	<b>333</b>	<b>7.34</b>	<b>306</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>14946</b>	<b>15052</b>	<b>355.32</b>	<b>14661</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>-125</b>	<b>-308</b>	<b>14.36</b>	<b>598</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>30264</b>	<b>25345</b>	<b>650.60</b>	<b>26964</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	5509	1800	70.88	2953
State Control Area Hydro	5365	1701	1291	44.54	1856
<b>Total Regional Hydro</b>	<b>15347</b>	<b>7210</b>	<b>3091</b>	<b>115.42</b>	<b>4809</b>

**V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(19:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	-400	-200	0	400	0.00	6.70	-6.70
Gwalior-Agra (D/C)	-145	-459	513	459	1.43	0.00	1.43
Zerda-Kankroli	-205	-306	0	306	0.00	5.34	-5.34
Zerda-Bhinmal	-140	-201	0	278	0.00	3.34	-3.34
Malanpur-Auraiya	-274	-323	0	323	0.00	4.95	-4.95
Badod-Kota/Morak	-89	-154	0	-148	0.00	2.30	-2.30
<b>Sub Total WR</b>	<b>-1253</b>	<b>-1643</b>			<b>1.43</b>	<b>22.63</b>	<b>-21.20</b>
Pusauli Bypass	250	250	250	0	6.05	0.00	6.05
MZP- GKP (D/C)	406	380	794	0	10.94	0.00	10.94
Patna-Balia(D/C)	174	232	381	0	5.88	0.00	5.88
B'Sharif-Balia (D/C)	87	170	340	0	4.53	0.00	4.53
Barh - balia(D/C)	206	279	407	0	6.73	0.00	6.73
Pusauli-Sahupuri	40	64	149	0	2.30	0.00	2.30
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-35	-40	0	48	0.00	0.88	-0.88
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1128</b>	<b>1335</b>			<b>36.43</b>	<b>0.88</b>	<b>35.55</b>
<b>Total IR Exch</b>	<b>-125</b>	<b>-308</b>			<b>37.86</b>	<b>23.51</b>	<b>14.36</b>

**V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ISGS/LT Schedule (MU)			Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
ER	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
21.85	1.07	22.91	3.40	-2.02	-2.56	-5.80	0.00	0.00

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
23.76	-12.94	10.82	35.55	-21.20	14.36	11.79	-8.26	3.53

**VI. Frequency Profile**

----- % of Time Frequency ----->								
<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.20	16.00	55.70	83.90	44.20	1.60	0.10

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.27	18.01	49.13	17.53	49.67	1.37	0.16	50.02	0.00

**VII. Voltage profile**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV
Rihand	400	409	21:50	0	11:27	20.3	20.3	0.0	0.0
Gorakhpur	400	431	20:18	400	10:30	0.0	0.0	57.3	0.6
Bareilly	400	422	20:13	395	11:15	0.0	0.0	1.9	0.0
Kanpur	400	417	21:52	397	11:09	0.0	0.0	0.0	0.0
Dadri	400	416	02:20	400	11:10	0.0	0.0	0.0	0.0
Ballabgarh	400	420	21:48	404	18:25	0.0	0.0	0.0	0.0
Bawana	400	421	02:18	403	10:29	0.0	0.0	2.1	0.0
Bassi	400	428	21:49	396	10:13	0.0	0.0	7.7	0.0
Hissar	400	414	21:13	396	11:10	0.0	0.0	0.0	0.0
Moga	400	421	01:05	403	11:13	0.0	0.0	1.2	0.0
Abdullapur	400	426	01:05	405	11:14	0.0	0.0	24.5	0.0
Nalagarh	400	426	01:05	405	11:13	0.0	0.0	32.1	0.0
Kishenpur	400	412	01:05	391	18:52	0.0	0.0	0.0	0.0
Wagoora	400	390	16:33	369	18:53	46.1	98.3	0.0	0.0

**VIII. Reservoir Parameters:**

Name of Reservoir	Parameters		Present Parameters		Last Year		Last day	
	FRL (m)	MDDL (m)	Level (m)	Energy (MU)	Level (m)	Energy (MU)	Inflow (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	508.98	1500.16	510.76	1590.18	234.75	383.55
Pong	426.72	384.05	419.23	848.35	421.74	975.89	62.44	399.41
Tehri	829.79	740.04	817.20	942.25	NA	NA	83.11	81.00
Koteshwar	612.50	598.50	599.90	0.45	NA	NA	75.00	79.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	96.39	93.46
Rihand	268.22	252.98	NA	NA	277.77	191.10	NA	NA
RPS	352.80	343.81	350.66	NA	349.00	NA	NA	252.19
Jawahar Sagar	298.70	295.78	297.88	NA	297.88	NA	NA	222.85
RSD	527.91	487.91	519.77	NA	520.43	NA	99.11	158.21

**IX. System Constraints:**

**X. Grid Disturbance / Any Other Significant Event:**

**XI. Weather Conditions For 15.11.2011 :**

Normal weather

**XII. Synchronisation of new generating units :**

**XIII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**

**XIV. Tripping of lines in pooling stations :**

**XV. Complete generation loss in a generating station :**

Report for : 15.11.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER